



**Every Task,  
The Right Way,  
Every Time!**

**PHA and COR ISO**

# **PHA and COR ISO Recommendation Management (Richmond Refinery)**

**01-17-11**



# PHA and COR ISO Recommendation Management

- Purpose: To provide a basic overview of expectations on how to manage PHA and COR ISO recommendations.
- Scope: Applies to recommendations resulting from Process Hazard Analysis (PHA) and PHA Revalidations, as well as Latent Condition reviews, Inherently Safer Systems reviews, and Seismic reviews conducted in conjunction with PHAs as required by the City of Richmond Industrial Safety Ordinance (COR ISO).
- Objective: To provide guidance on the proper method of managing, documenting and closing PHA and COR ISO recommendations.

# PHA and COR ISO Recommendation Management



## Why is this Important?

- Process Hazard Analysis is one of the fundamental tools we have for preventing catastrophic releases that in many cases could lead to multiple injuries or fatalities.
- By properly managing and documenting resolution of PHA recommendations, we are taking proactive steps in reducing the likelihood of incidents which may lead to injury or possibly death of our co-workers, friends and family.



# Expectations for Managing PHA and COR ISO Recommendations

- 1) Confirm Proper Assignment with Supervisor
- 2) Review Due Date
- 3) Develop Risk Reduction Plan
- 4) Update Status of Risk Reduction Plan
- 5) Include Reference to Key Documentation
- 6) Complete the Recommendation
- 7) Verification and Closure





## 1) Confirm Proper Assignment with Supervisor

- PHA and COR ISO recommendation assignments are made during the PHA Close Out meeting. When the recommendations are entered into the database, an E-mail notification will be issued to the recommendation owner and his/her supervisor.
- Brief discussion should be held by the recommendation owner and supervisor to assure the assignment is appropriate.
  - If the assignment is appropriate, the recommendation should be included on owner's job log or appropriate work list.
  - If assignment is not appropriate, please contact the PHA Coordinator (Mark Crow - MXEW) for next steps.

## 2) Review Due Date

- The 'due date' is the date by which the recommendation will be completed, verified, and closed.
- Preliminary assessment of the timeline to close the recommendation should be made within the first month of the assignment to ensure work is completed within a year.

### **Richmond Industrial Safety Ordinance (RISO)**

**We are required by RISO to close PHA and COR ISO recommendations within one year.**

**This includes recommendations from:**

**Process Hazard Analysis**

**Latent Condition Reviews**

**Inherently Safer System Reviews**

**Seismic Reviews**

## 2) Review Due Date

- Recommendations are expected to be completed and closed within one year of the date of the PHA Close Out Meeting, with the following exceptions:

1) a shutdown is required for completion.

In this case, action item owner is responsible for ensuring that the work is on the shutdown work list, it is identified as a 'PHA/COR ISO' item and it cannot be removed from shutdown work scope without approval of area management.

2) project/equipment delivery issues prolong completion of the recommendation.

In this case, due diligence must be demonstrated to complete the recommendation in a timely manner. For example, 'We cannot wait eight months after assignment before doing any work, then expect the due date to be extended because it is going to take five months to get the equipment from the vendor.'

### 3) Develop Risk Reduction Plan

#### **All Recommendations require a Risk Reduction Plan**

- For all recommendations, within one month of assignment, a Risk Reduction Plan must be developed describing how the recommendation will be addressed, reducing the risk to an acceptable level.
  
- A Risk Reduction Plan includes:
  - Action(s) to be taken to complete plan
  - Assigned responsibilities
  - Timing
  
- The plan will be documented in the 'resolution' field in the PHA/COR ISO database for each recommendation.

### 3) Develop Risk Reduction Plan (cont.)

- When developing a Risk Reduction Plan, allow adequate time for completion of the recommendation, verification/closure and/or unforeseen delays.
- Any issues of prioritization and funding must be reconciled with the ABU management to support the risk reduction plan.

#### **Consider this...**

Most recommendations begin with the word 'Consider'. It is an industry standard to format recommendations in this manner so that the risk mitigation actually implemented is not restricted to the recommendation made by the PHA team.

*Consider reducing the risk in this manner...or in a more appropriate manner.*

*Reducing the Risk is the key; not just considering it.*

### 3) Develop Risk Reduction Plan (cont.)

#### Long and Short Term Risk Reduction Plans

- **Long Term Risk Reduction Plan** – The sustainable risk reduction which may take one or more years to implement due to the time required to fully define the actions and then design, procure, and install required modifications.
- **Short Term Risk Reduction** – Risk reduction action taken to mitigate an elevated risk during the period when long term risk reduction actions are being evaluated, scheduled, and executed.



### 3) Develop Risk Reduction Plan (cont.)

HES Risk Ranking must be considered when developing Risk Reduction Plan:

HES Risk Ranking	Risk Reduction Plan Requirements
1-4 Elevated Risk	Short and Long Term Plan Required
5	Long Term Plan Required. Short Term Plan should be considered.
6	Risk is considered tolerable if existing safe guards are confirmed to be in placed. Further risk reduction is at management discretion.
7-10	No further risk reduction required. Further risk reduction is at management discretion.

### 3) Develop Risk Reduction Plan (cont.)

- Short Term risk reduction plans should be implemented as soon as possible and at least within 6 months after identification of the risk.
- Examples of Short Term Risk Reduction are:
  - Modifying or creating new procedures
  - Reducing inventories or rates
  - Locking out critical valves or systems
  - Increased frequency of process/field readings
  - Increased UT monitoring or inspections.
  - Installation of additional process indication or alarms
  - Installation of temporary equipment

**A Short Term risk reduction plan should always be considered, even if it is not required, to reduce the risk until the Long Term plan is implemented.**



## 4) Update Status of Risk Reduction Plan

- As key steps of the risk reduction plan are completed or on a quarterly basis, the recommendation owner should update the information in the 'resolution' field with the status of the work plan.
- Begin each status update with the date and the name(cai) of the person who is updating the information so that progress can be tracked.
- Example:

*Status 09/10/2010 Mark Crow (MXEW) Generated MOC #20202 to install high level alarm on V-202. Expect work to be completed by 12/01/2010*

The original Risk Reduction Plan should not be deleted or modified when updating status. If original plans change, describe reason for change and new plan in the status.

## 5) Include Reference to Key Documentation

- Key documentation should be referenced in the 'resolution' field which demonstrate the completion of the recommendation.
- Examples: Work Orders, MOCs, Projects, Procedures, Drawings, Operating Rounds, LOTO Lists, or other types of documentation or process safety information which can be used to confirm that the recommendation has been completed.

### Ask Yourself...

**...in five years from now, what documentation could be used to verify that this work was completed?**

## 6) Completing the Recommendation

**A recommendation is considered complete when the change is implemented and appropriate documentation is completed and in place.**

- A recommendation is **not** complete just because a work order or MOC has been written to complete the work.
- A recommendation is **not** complete just because a job was added to the shutdown list or job list.

## 6) Completing the Recommendation (cont.)

A few examples to illustrate what complete means:

Recommendation	Considered complete when...
<i>Update P&amp;IDs</i>	<i>the MOC to update drawings is complete (Stage 3 completed). Drawings online reflect the update</i>
<i>Improve Labeling</i>	<i>the work order or job task to improve labeling is complete and all labels have been installed</i>
<i>Update Procedures</i>	<i>the procedures are updated, the EOM reflects update (if appropriate) and the appropriate employees are notified or trained</i>
<i>Install Equipment</i>	<i>equipment has been installed and all documentation is in its permanent location. The PSSR and MOC are complete (Stage 3 completed)</i>

## 6) Completing the Recommendation (cont.)

### Guidance for Recommendations to Evaluate, Study, or Review a Condition

- Following the evaluation:
  - **If The Condition is Acceptable** - the recommendation will be considered complete.
  - **If The Condition is Not Acceptable** – the recommendation must remain open. The risk reduction plan must be updated to reflect follow-up work required to establish an acceptable condition. When that work has been implemented, the recommendation will be considered complete.
- Developing work plans for these types of recommendations must allow time for not only the evaluation, but also the implementation of the follow-up work required.



## 7) Verification and Closure

- Operations will verify that all PHA recommendations have been resolved properly.
- The OA will be the verifier for all PHA recommendations.
- If the OA is the owner of the recommendation, the Section Head or RBM will be the verifier.

*Verifier shall confirm that:*

- *the action taken appropriately reduces the risk identified in the PHA*
- *the change has been properly implemented and appropriate documentation is completed and in place*
- *references to key documentation have been included (i.e. Work Order, MOC, Project, Procedures...)*



## 7) Verification and Closure (cont)

- All PHA recommendations require that the owner assign a verifier prior to 'signing off' in the database that the recommendation has been completed.
- The verifier may consult with other personnel, such as an SME, to confirm that the recommendation has been properly completed.
- The verifier will be alerted of the recommendation assignment by an e-mail notification.
- The status of the recommendation in the database will continue to show as 'In Progress' until the verifier 'signs off' that the recommendation is verified as complete. At that point, the recommendation is considered closed.





## Questions or Concerns?

- If you have any questions regarding the PHA or COR ISO reporting tools, database or recommendation management, contact Mark Crow (MXEW) at x-2071.

## Resources

- Chevron Integrated Risk Prioritization Matrix
- Risk Man 2 Sub Procedure 4: Develop Risk Reduction Plan and Document Closure.